

Year 3	
LO: To compare how things move on different surfaces	
<p><b><u>National Curriculum Aims:</u></b></p> <ul style="list-style-type: none"> <li>• Compare how things move on different surfaces</li> </ul> <p><b><u>Scientific enquiry type:</u></b></p> <ul style="list-style-type: none"> <li>• Comparative and fair tests</li> </ul>	<p><b><u>Teaching</u></b> (See Powerpoint Presentation) First section of presentation introduces Sika, what they do and that they usually have a stand at the Lancashire Sciences Festival. Explain to the children that today they are going to be scientists and that they are going to carry out an investigation to see how different surfaces affect how far a car will travel.</p> <p><b><u>Talking partners/think/pair/share:</u></b> Ask them how they think we could do this? Children will share their ideas (Try to get some of these to be part of the experiment if possible)</p> <p><b><u>Main Activities</u></b> Explain that we are going to be using a ramp, toy cars and different surfaces at the bottom of the ramp. The toy car can then be put at the top of the ramp and let go so it rolls down the ramp and then onto the surface. We will then be able to use rulers, metre sticks or tape measures to measure how far the toy car travelled on the surface. Ask them how we can make sure that the test is fair (use the same toy car and make sure that the ramp is the same height etc.)? Show them the different surfaces that you have chosen and ask them to predict which surface the car will travel the furthest on and which surface the car will travel the least furthest on. Get them to record their predictions and their reasons for their predictions on the lesson resource sheet (see lesson resource sheet). The children will carry out the investigation and then record their results in the table (see lesson resource sheet).</p> <p><b><u>Plenary</u></b> What did they find out from our investigation?</p>
<p><b><u>Key Vocabulary</u></b></p> <p>Push Pull Force Material Surface Investigate Ramp</p>	<p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• Ramp of some kind (this can be a proper science ramp or made using a whiteboard etc)</li> <li>• Toy cars</li> <li>• Different materials for ramp to be placed on such as felt, foam, fabric, sandpaper, tin foil, carpet, rubber matting.</li> <li>• Large open space such as hall or classroom with desks pushed back against walls.</li> <li>• Tape measures/rulers/metre sticks</li> <li>• Powerpoint presentation and worksheet provided by Sika.</li> </ul>
<p><b><u>Working scientifically</u></b> <b>Working scientifically links:</b> Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p>	<p><b><u>Assessment</u></b> <b>All:</b></p> <ul style="list-style-type: none"> <li>• Can decide to carry out a comparative test.</li> <li>• Can compare how an object moves on different surfaces</li> <li>• Can talk about how the surface affected the movement of the object across it.</li> </ul>